PRE-COURSE WORK ASSIGNMENT

COURSE:	Fire Program Management, M-581
LESSON:	H - Tools and Their Applications
UNIT:	3 - Program Management
SUGGESTED TIME:	1 hour
EQUIPMENT:	Internet access
MATERIALS:	3H Pre-course Work Assignment
OBJECTIVES:	Upon completion of the pre-course work participants will be able to recognize advanced technology tools available and their application for assisting managers.

ACTIVITY
Reading, exercises and answering questions

A. INTRODUCTION

The pre-work assignment will:

- Describe suggested hardware specifications and networking, administration, and connectivity issues of concern to fire managers.
- Explore agency supported web portals that distribute fire management applications.
- Utilize web-based databases consisting of agency weather and fire occurrence records.

B. ASSIGNMENT

Read the following, answer the questions, and complete the exercises.

Fire managers are typically asking more of their respective Information Technology support staff than many agency personnel. Many factors contribute to this situation. Many fire management positions are inter-agency in nature or scope. There is often a need for access to multiple networks (external and internal), sources of agency data, sharing of files ranging from simple text to extensive databases or spatial data of large size and near real-time electronic connectivity. In addition fire specific applications are developed by academia and/or agency researchers and distributed through various sources other than network administrators. Typically application support is either lacking or provided off-site through development staff.

Fire managers are left to navigate the morass of file management, application installation and support, and external connection functionality outside the realm of network administration provided at their local unit. Successful managers will quickly need to adapt to this condition and develop at least rudimentary skills in managing their information technology resources. In many

cases interagency peers and fire specific support staff at the regional or national level can provide needed support.

Familiarity with your typical hardware configuration can assist in meeting these challenges. Many managers have found it easier to work solely off one workstation that provides for networking at home and the same configuration on the road. Laptop computers can typically provide the same needed specifications for data processing, memory capacity, data sharing, and connectivity. For those users that prefer the ergonomic advantages of a desktop workstation, laptop configuration can easily accommodate external pointing devices, keyboards, and full-size monitors. Guidelines for hardware purchasing are usually managed through consolidated contract purchases and overseen by local IT staff. Available models and configurations are routinely updated to try and keep pace with industry advances. Most fire management users will find that high-end models described on government contracts are necessary to meet user demands. (See HO-1 describing suggested computer specification for attendance at higher level fire curriculum classes.).

In addition to the hardware you will utilize, it is equally important to have the ability to manage the files, data and applications available to meet the demands of your position. Modern operating systems have responded to current threats and security concerns by building administrative controls over networked resources. These controls will typically limit the ability of the generic user to manage their IT resources in the realm of system set-up options and software installation. While there are significant benefits to this in the protection of government networks from corruption and invasion of privacy, it also introduces hurdles to the accomplishment of many duties. Unfortunately this is often not fully understood or discovered until fire personnel are working in time critical situations on emergency incidents or away from their duty station in meetings, workshops, or training sessions.

M-581 Fire Program Management

Pre-Course Work – 3H
Due to NAFRI by April 6, 2005

Name: _____
Email:_____
Work phone: _____

Hardware/Network Resources Questions

Is your workstation a desktop or laptop computer?
If desktop, do you have a laptop computer available to you for assignment?

On your primary workstation;
What operating system is installed?

What is your hard drive capacity and how much space is free?
(Open My Computer and select properties of your local drive (C: typically)

Do you have the ability to install software without assistance from IT?

What data sharing options are available to you?

Floppy disk drive	_____
Zip disk drive	_____
CD, is it writable as well?	_____
DVD, writable?	_____
USB ports for jump drives	_____
PC Card adapter for CompactFlash disk	_____

While away from work what are your options to connect to e-mail servers, Internet pages, Intranet connections, and your local network resources?

Do you have an agency hosted dialer (toll-free, local, etc.)?

Do you have access to a VPN (Virtual Private Network) connection?

What security features are installed and enabled on your portable workstation?

Will the virus protection software run while you are not connected to your home network?

Are e-mail attachments screened for viruses?

Fire Management Applications

Many fire specific applications are available for download at various agency hosted web portals. Some of the most useful sites are:

http://www.frames.gov/tools
http://www.fs.fed.us/fire/planning/nist/
http://fire.org/

Visit these websites and become familiar with the applications available to you and some of their uses.

Download and install the following two applications on your workstation.

FireFamily Plus, version 3.0.5 (the most current version is available at www.fs.fed.us/fire/planning/nist/). *Fire Family Plus is a useful application for viewing weather observations, calculating a variety of fuel conditions and fire danger indices, and analyzing fire occurrence data vs. weather and fire danger conditions.*

Wildland Fire Situation Analysis Plus, version 04.4 (the software is maintained at http://www.fs.fed.us/fire/wfsa/), BLM users need to follow specific installation instructions on the main page. *The WFSA Plus program leads users through the completion of decision documents for wildland fire management (both WFSA's for extended attack suppression responses and Wildland Fire Implementation Plan's, WFIP's for wildland fire use actions). Both elements of the program allow for inputs of various unit data in pre-planned scenarios that can be called up and referenced when completing the process on a going incident.*

Web-Hosted Shared Applications

Large shared inter-agency databases and data intensive applications run on remote servers accessed by authorized users through web connections. Examples include the Weather Information Management System (WIMS), Resource Ordering and Status System (ROSS), and the Incident Qualifications and Certification System (IQCS).

Access to these sites is usually controlled with user id's issued by an agency or interagency contact to these personnel who have demonstrated a need to access the information. Controls can be implemented as to the privileges allowed each type of user, for example one user may control the entering and manipulation of weather data for a unit while several other users from the unit can access that information for viewing and downloading only.

The Weather Information Management System (WIMS) is a critically important data warehouse of archived fire weather observations and calculated fuel moistures and fire danger indices. Many units dispatch center manages the weather station and daily observation archiving during fire season. Fire managers should also maintain access to weather data collected on their unit and routinely visit WIMS to ensure data integrity.

You must have a WIMS ID to access the historical database. Federal and non-Federal personnel can obtain one in several ways. Contact the USFS National Information Systems Help Desk to get you through the process at 1-800-253-5559.

Access to WIMS is through the National Fire and Aviation Management Web Applications site FAMWEB at http://famweb.nwcg.gov/. In addition to access directly into WIMS, data sets from across the country are available at this web portal without accessing the WIMS application. This site contains fire weather data sets by weather station in .fwx file format along with unit specific fire occurrence data in .fpl format. These files can be downloaded and the utilized in fire management applications such as Fire Family Plus and many others.

M-581 Fire Program Management

Pre-Course Work – 3H
Due to NAFRI by April 6, 2005

Name: _____
Email:_____
Work phone: _____

Web-based Assignment

Do you have a user ID assigned to you or have access to a shared log-in at your unit to the WIMS database?

Go to the FAMWEB main page and scroll to the bottom, click on the US Federal Wildland Fire Management Data link. From the "Fire and Weather Data" page select the Florida from the list on the left. Scroll through the weather files table until you locate the Cache weather station, NWS Station #086702.

What is the period of record for this station (how many years of data are available)?

Download both the station catalog file (086702.txt) and the weather data file (086702.fwx). Take the time to note where on your computer you are downloading this.

M-581 Fire Program Management

Pre-Course Work – 3H
Due to NAFRI by April 6, 2005

Name: _____
Email:_____
Work phone: _____

Data Utilization Assignment

Open the FireFamily Plus application you downloaded earlier. If a default dataset is open close this by going to the File menu, and select "Close". From the File menu, select "New" and name the new database M581.mdb. From the Data menu select "Import" and load both the station catalog and weather data files for the Cache weather station you downloaded earlier.

Within the Working Set window complete the following:

- Ensure that the SIG/Station drop down list has 086702-CACHE selected.
- Select the full extent of the data years available 1975 thru 2003.

Then from the Weather menu, select "View Observations – All". You should see a table displaying all of the archived weather observations (one per day) for the period 1975-2003. If you right click in the column headers (Max Temp for instance) you can re-sort the data set either ascending or descending by that value (highest or lowest max temp recorded for example).

Sort the Precip field in descending order.

What is the most rain recorded in a 24 hour period at this station?

On what date did this occur?